

(19)



JAPANESE PATENT OFFICE

PATENT ABSTRACTS OF JAPAN

(11) Publication number: **04154731 A**

(43) Date of publication of application: **27.05.92**

(51) Int. Cl.

**C07B 51/00**  
**C07C227/20**  
**C07C229/02**  
**C07D209/20**  
**C07K 1/06**  
**C07K 5/10**  
**// C07B 31/00**  
**C07B 61/00**

(21) Application number: **02277809**

(22) Date of filing: **18.10.90**

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(54) **DEPROTECTION METHOD**

(57) Abstract:

PURPOSE: To carry out the deprotection of a protected functional group by the catalytic hydrogenation with H<sub>2</sub> released from a hydrogen-occluding alloy composed mainly of a compound having a CaCu<sub>5</sub>-type hexagonal crystal structure and containing Ni and a rare-earth element or Ca element as essential elements.

CONSTITUTION: A protected functional group is deprotected by the catalytic hydrogenation at 0-80°C with H<sub>2</sub> released from a hydrogen-occluding alloy composed mainly of a compound having a CaCu<sub>5</sub>-type hexagonal crystalline structure and containing R (rare-earth

element or Ca element) and Ni as essential elements. Preferably, the decomposition temperature of the alloy corresponding to the decomposition equilibrium pressure of 1 atm is  $\leq 200^{\circ}\text{C}$  and the average particle diameter of the alloy is 0.5-100 $\mu\text{m}$ . Since the alloy has high catalytic activity in itself, the deprotection can be carried out in high efficiency under a high-safety condition (i.e., an H<sub>2</sub> gas pressure of  $<10\text{kg/cm}^2$ ) without using a catalyst. A large amount of H<sub>2</sub> gas can be occluded in the alloy and the alloy is available at a low cost compared with conventional Pd or Pt catalyst and is durable to repeated use.

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USSFN 10/698,354

PC25373